

A cross-sectional view of a semiconductor device. The device consists of a substrate 2 with a dotted pattern, a thin layer 3 on top of it, and a wavy surface layer 4. Two rectangular blocks 5 are positioned on the wavy surface. A dashed line 9 represents a light path reflecting off the wavy surface. A coordinate system with x and z axes is shown in the upper left. Other labels include 6, 7, 8, 10, and 14.

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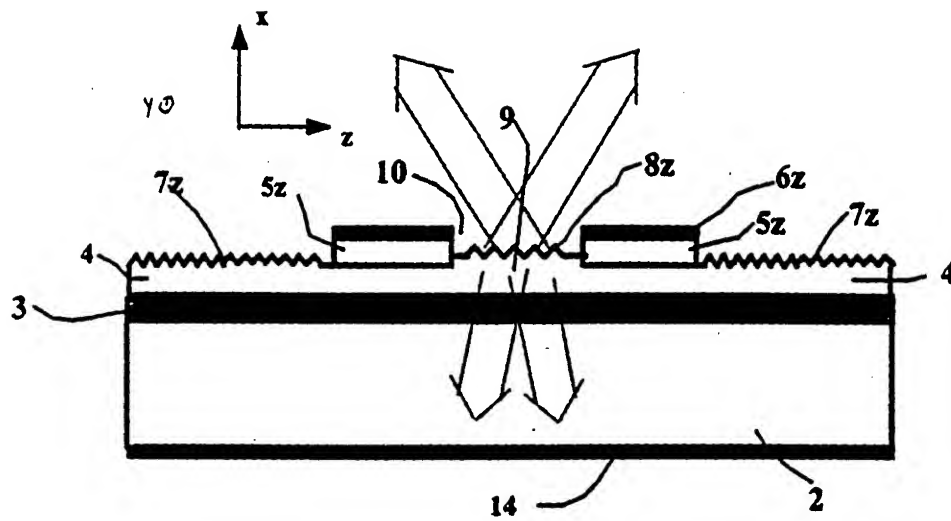


Figure 2A

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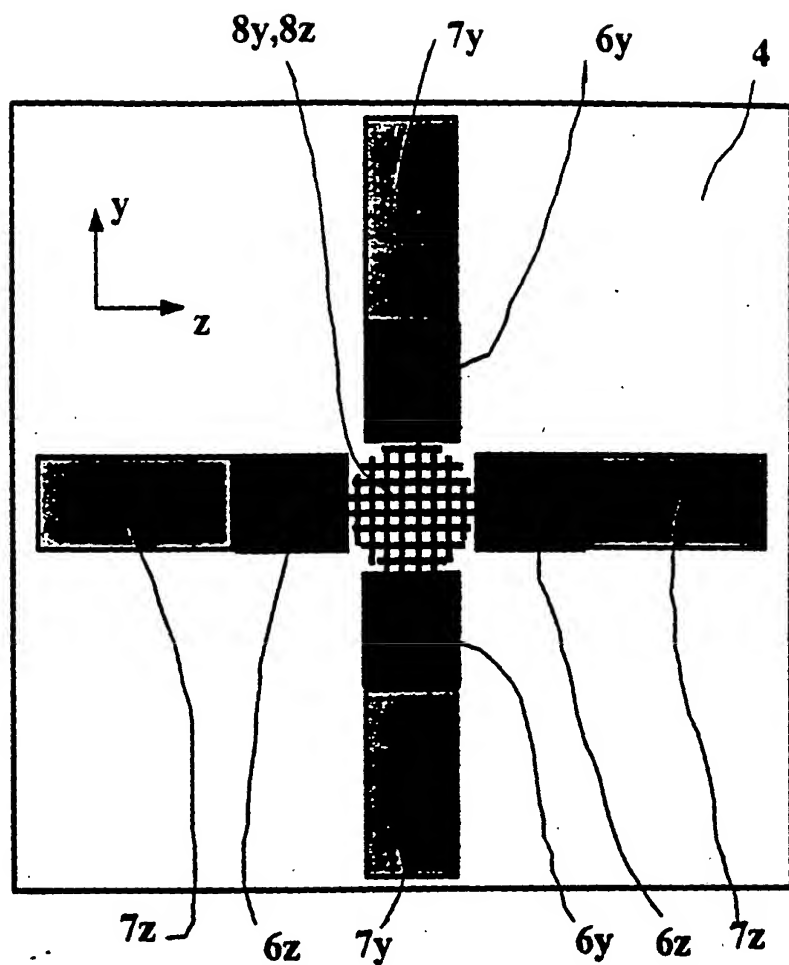


Figure 2B

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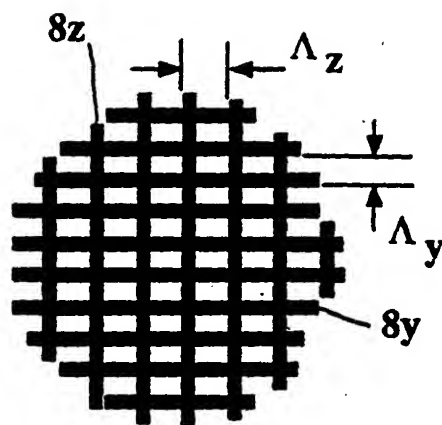


Figure 2C

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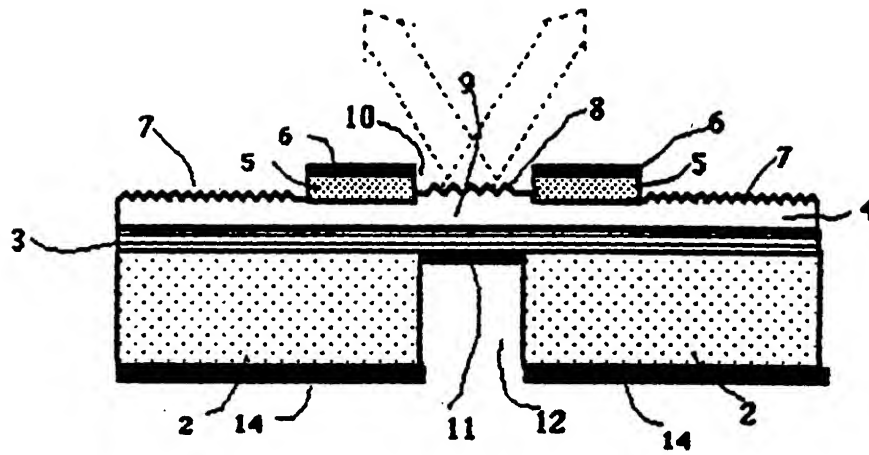


Figure 3

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A cross-sectional view of a device, likely a lens or a waveguide component. It features a central circular element (8) with internal vertical lines, flanked by two tapered sections (9). The entire assembly is enclosed within a rectangular frame (7). A coordinate system is shown in the upper left corner with a vertical y-axis and a horizontal z-axis. Various components are labeled with numbers: 7 (outer frame), 6 (top/bottom horizontal sections), 13 (side vertical sections), 9 (tapered sections), and 8 (central circular element).

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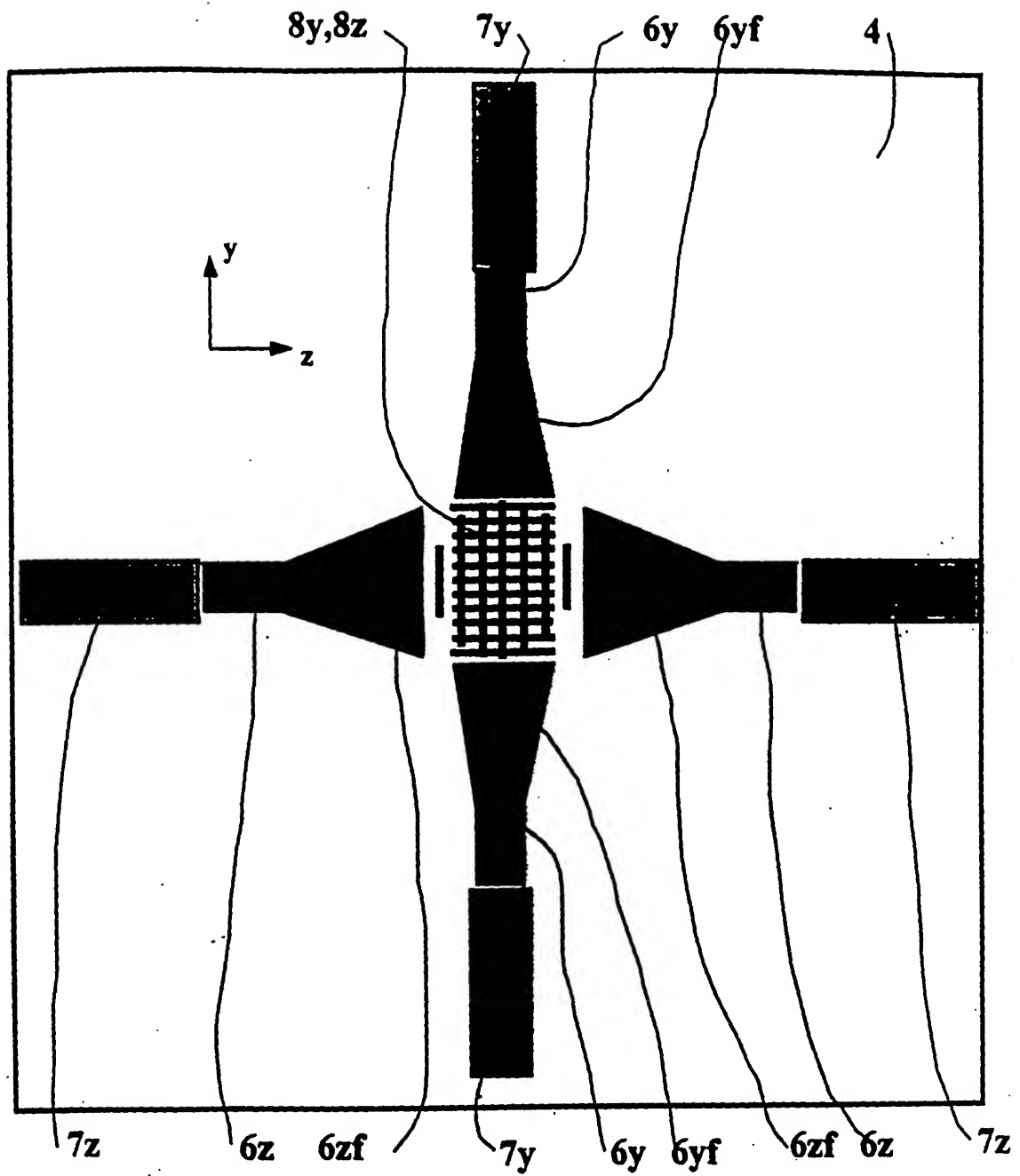


Figure 4B

A cross-sectional view of a semiconductor device. A coordinate system is shown with the x-axis pointing upwards and the y-axis pointing to the right. The device consists of a substrate 2 with a thin layer 14 on its top surface. A layer 3 is formed on top of layer 14. A wavy interface 10 separates layer 3 from a layer 4. Layer 4 contains two rectangular regions, 5y and 8y, which are separated by a wavy line 6y. The top surfaces of regions 5y and 8y are labeled 7y and 7yB, respectively. A layer 10 is shown above the wavy interface 10. A layer 6y is shown above the wavy line 6y. A layer 8y is shown above the wavy line 6y. A layer 14 is shown below the wavy interface 10. A layer 2 is shown below layer 14.

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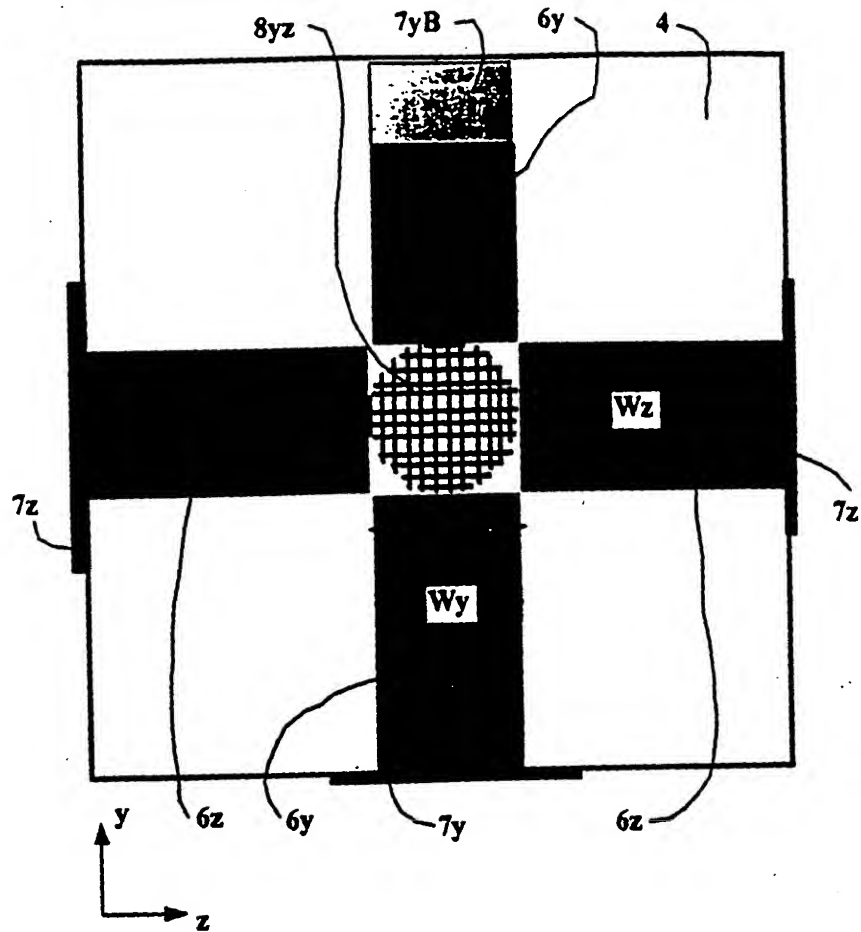


Figure 5B

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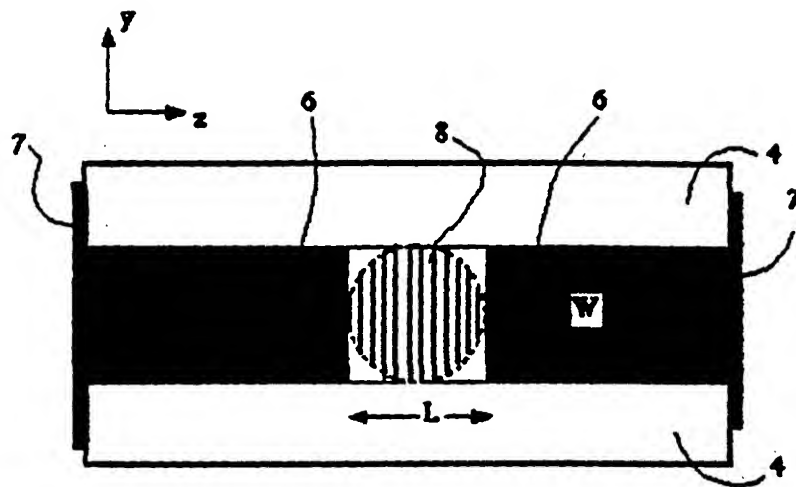


Figure 5C

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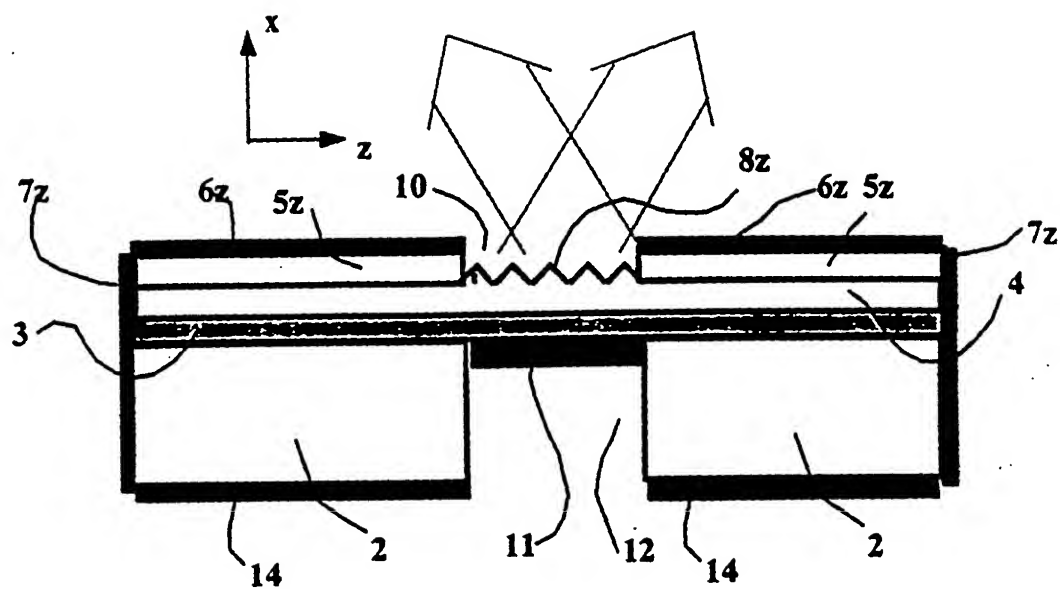


Figure 6

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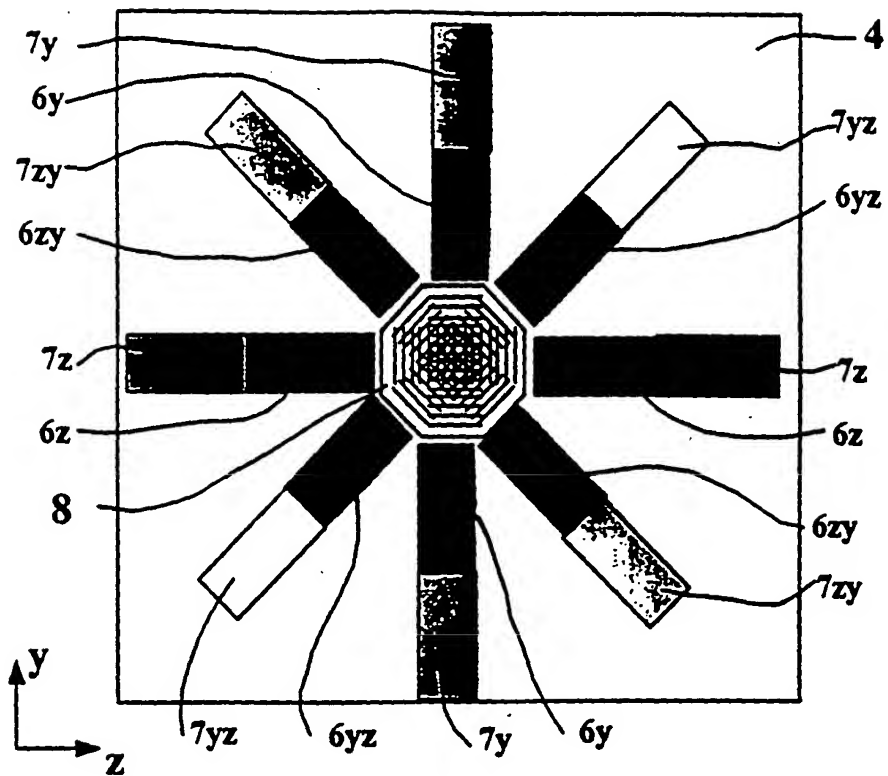


Figure 7A

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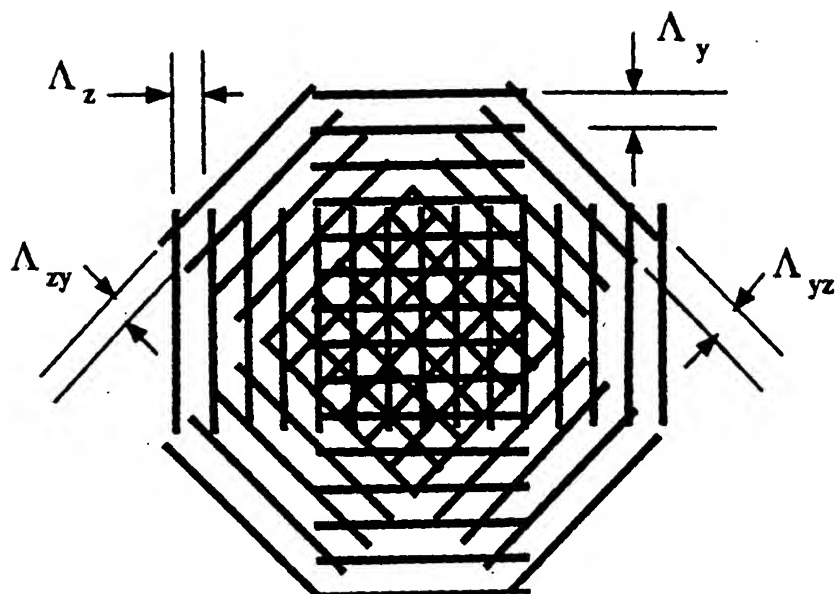


Figure 7B

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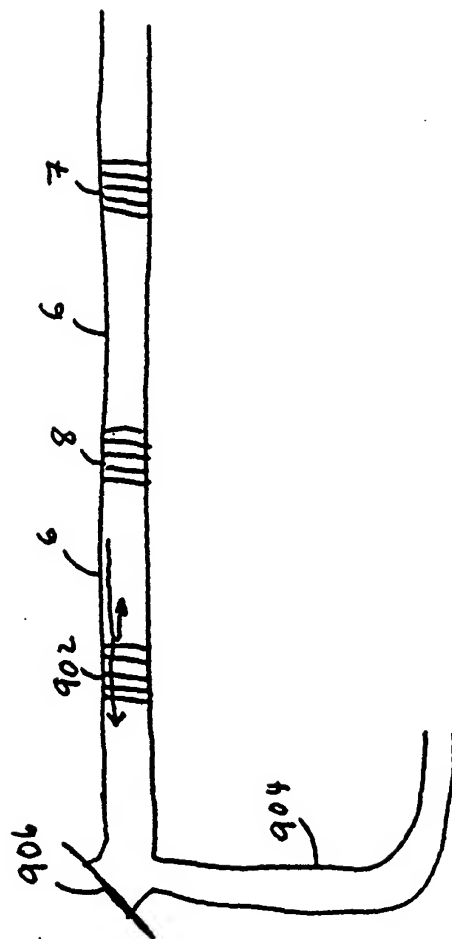


Figure 9

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Figure 10

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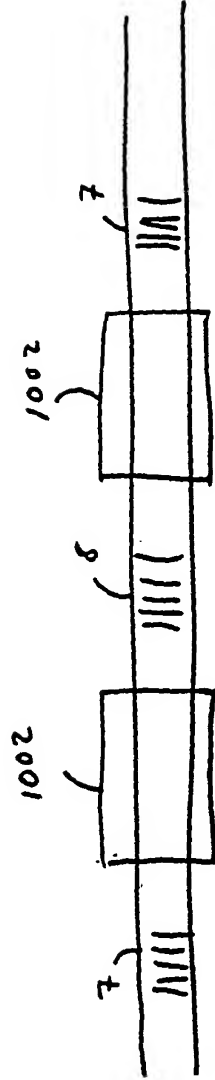


Figure 11

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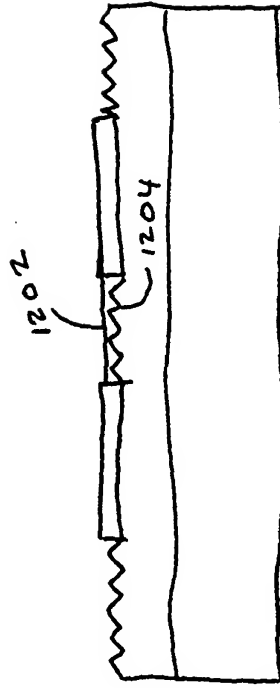


Figure 12

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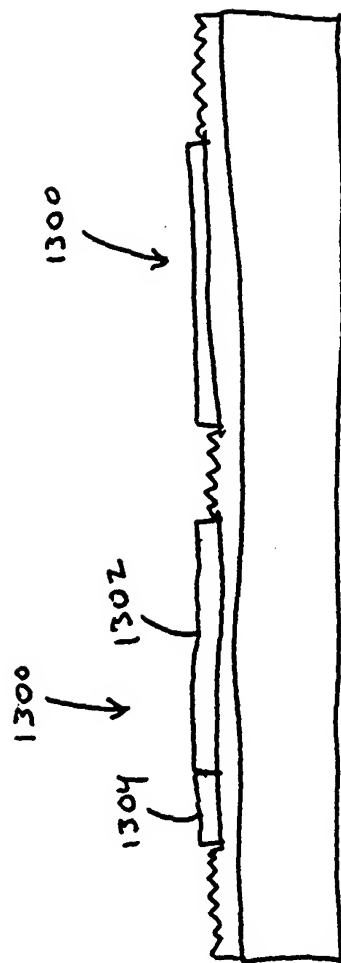


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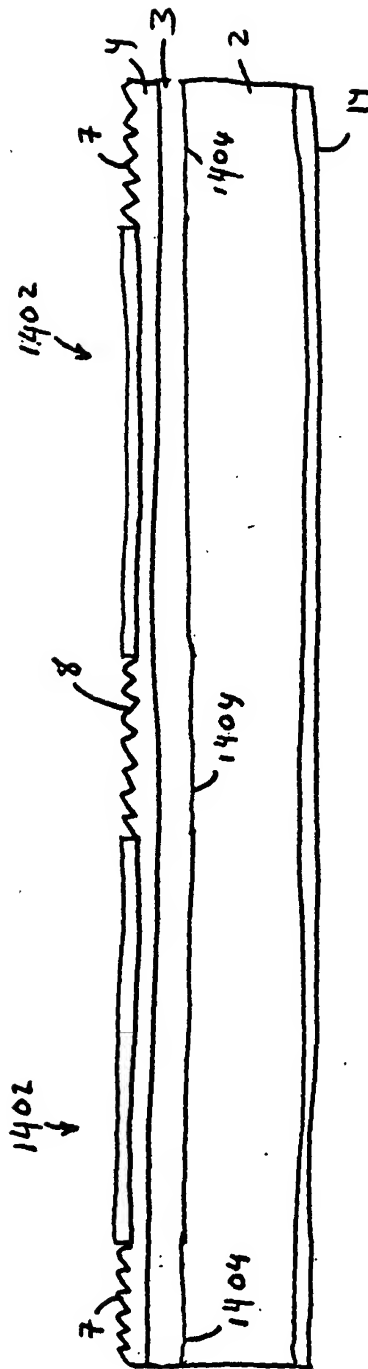


Figure 14

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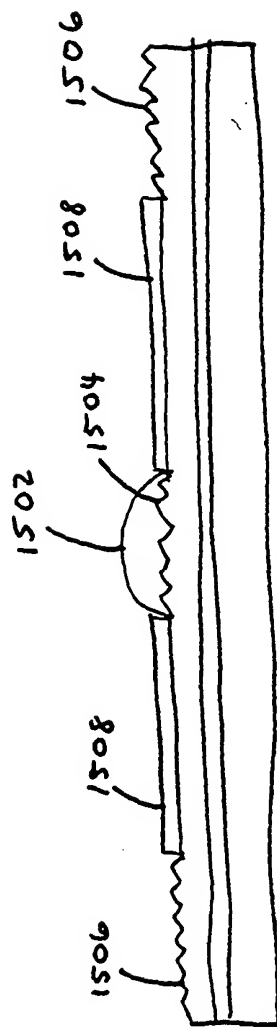


Figure 15

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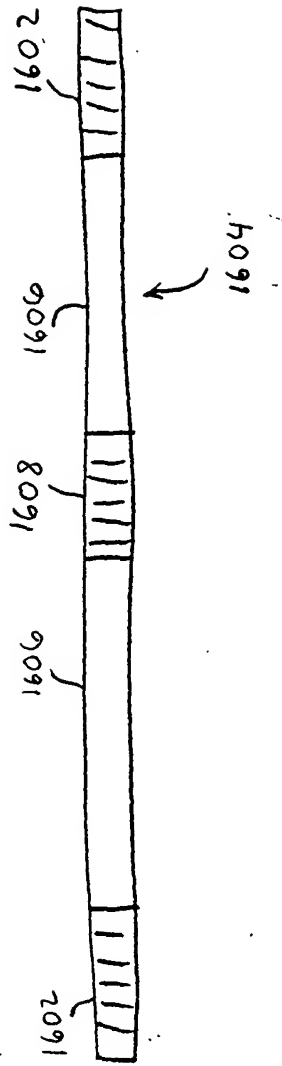


Figure 16

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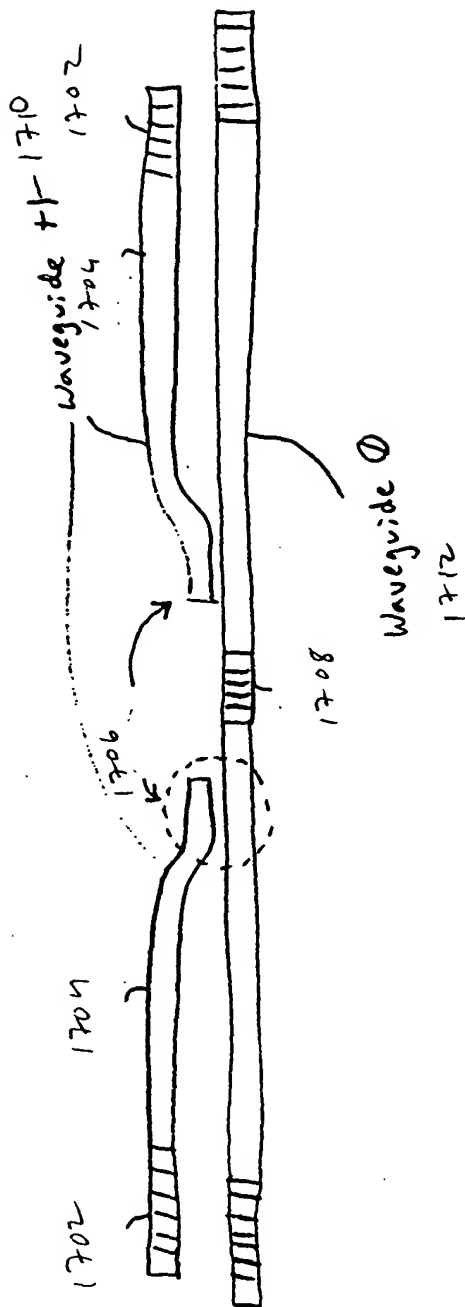


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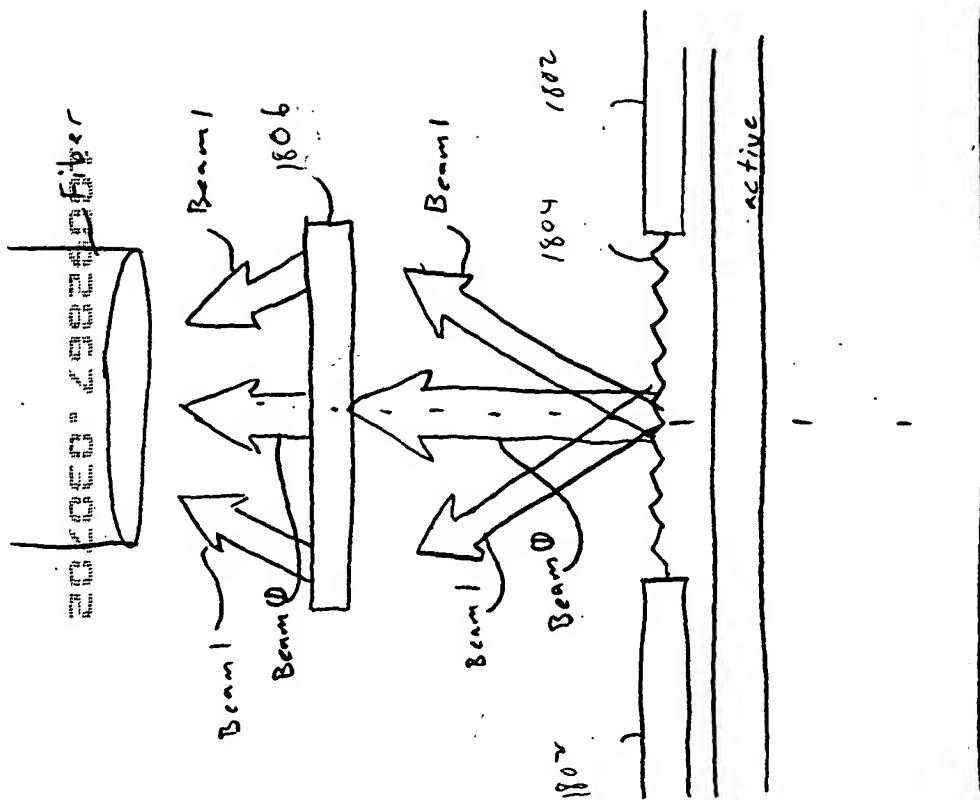


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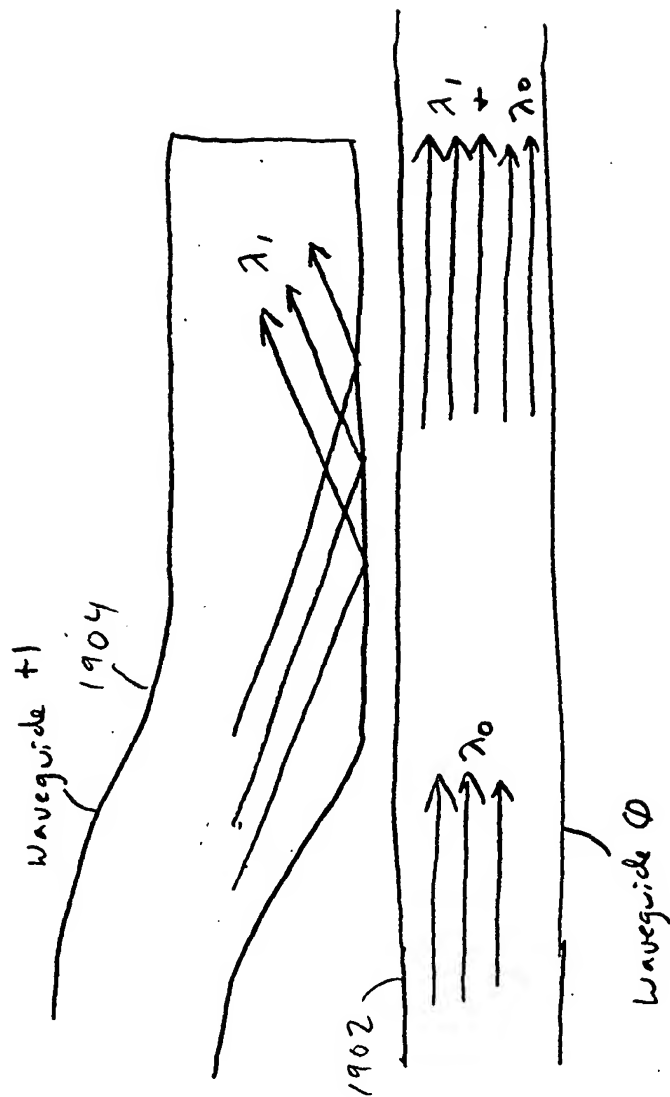


Figure 19A

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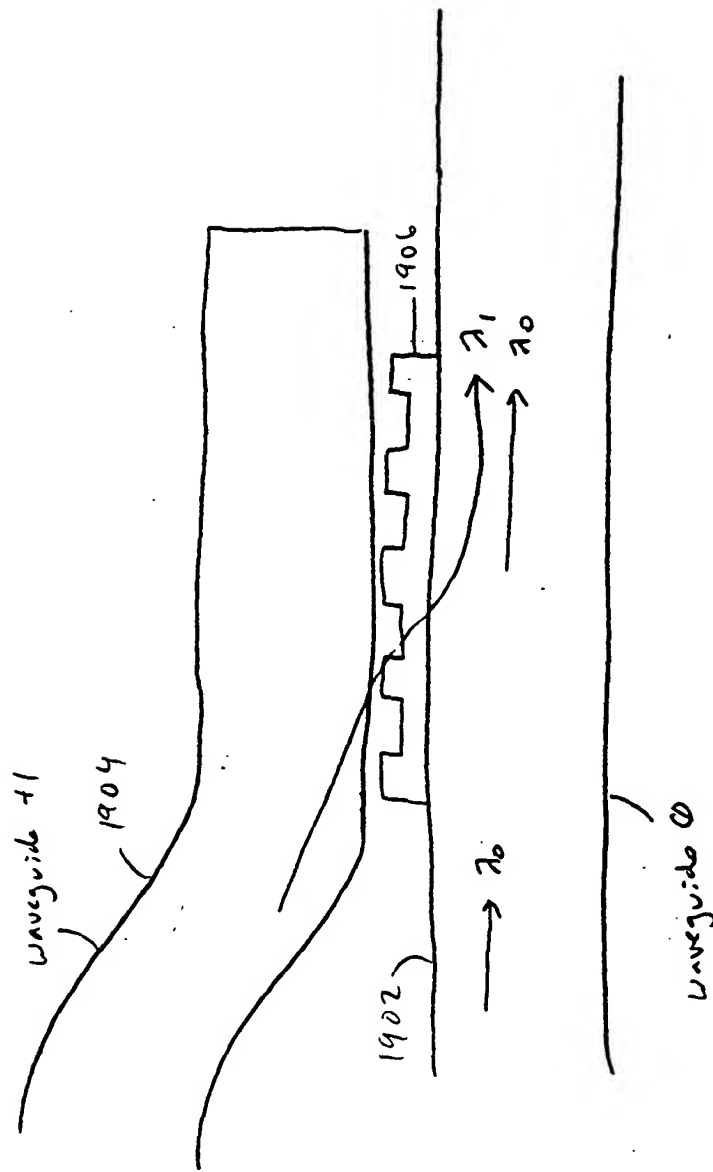


Figure 19B

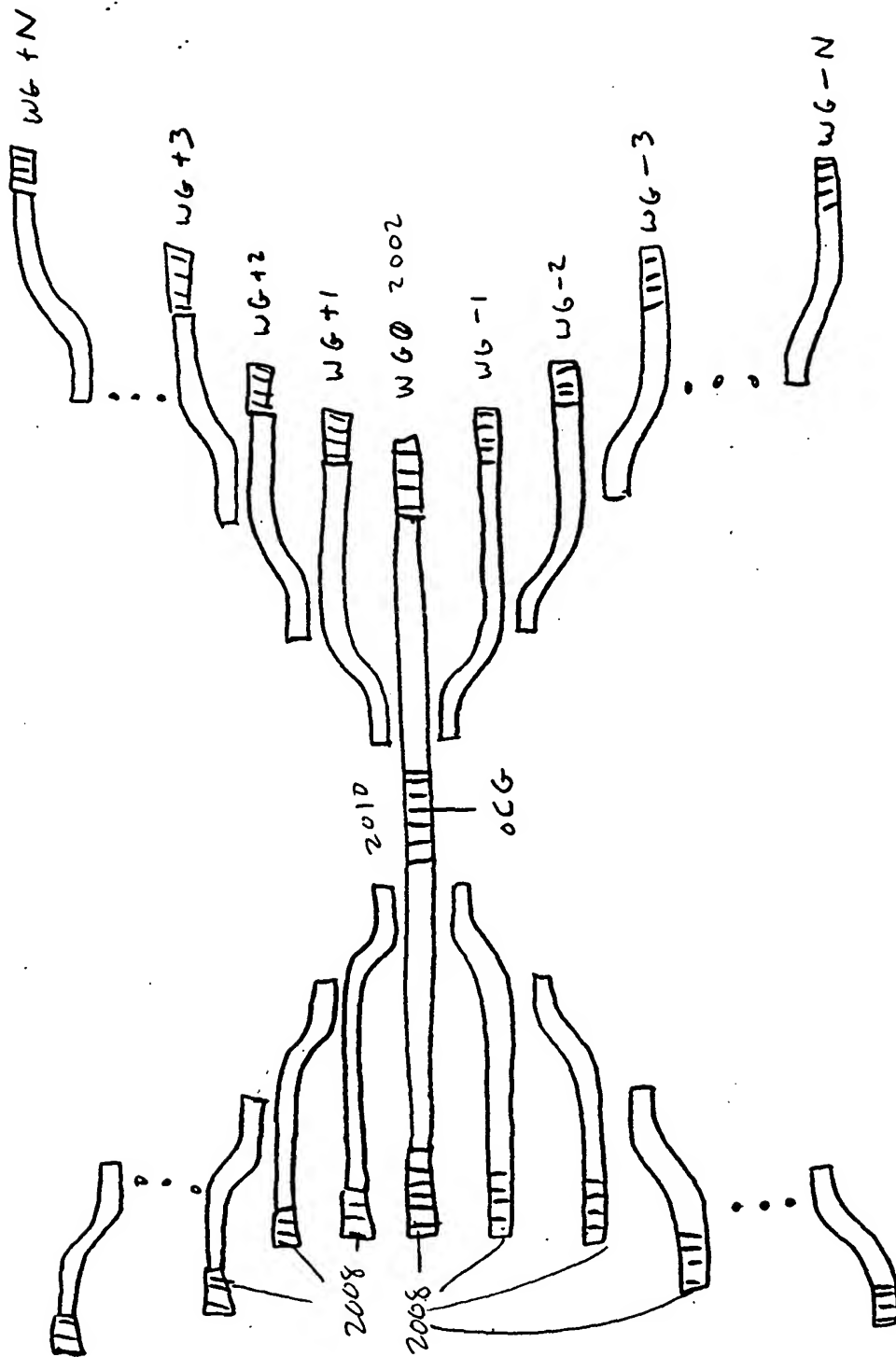


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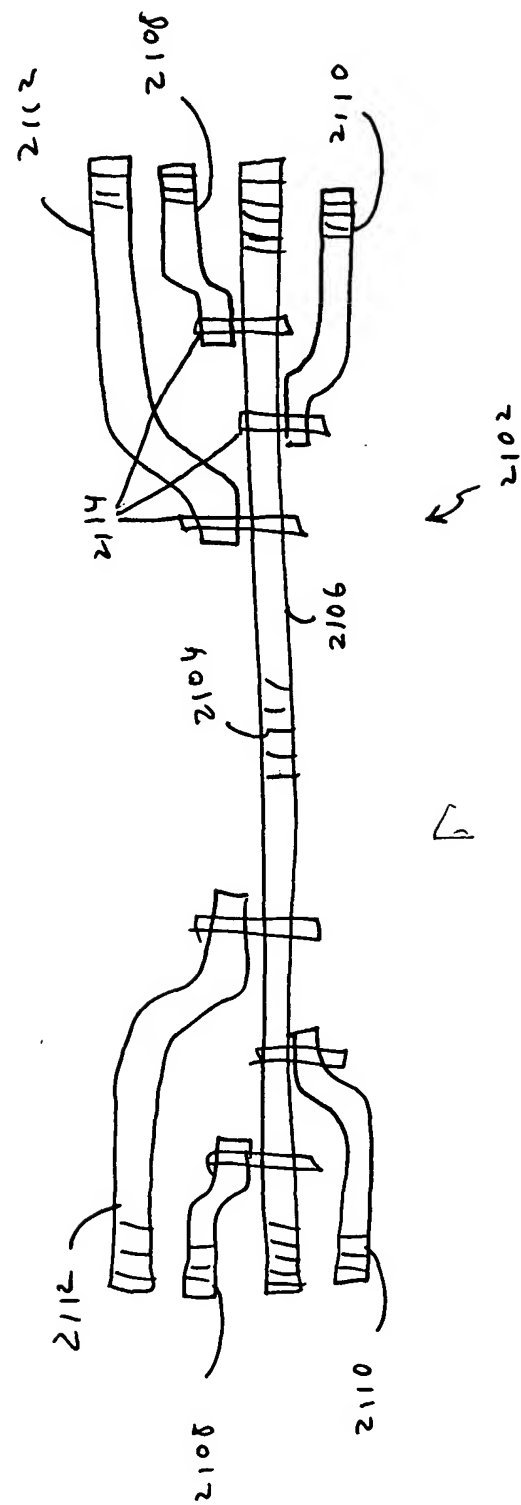


Figure 21

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